

DETAILED ACTION

Claim Objections

1. Claims 5-7 are objected to because of the following informalities: These claims depend from canceled claim 4. It appears they should depend from claim 1. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 5-7, 9-10 and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Wade (US 3,104,744).

Wade shows a conveyor idler including a drum 14 with outer and an inner surfaces, a shaft 10 about which the drum can rotate in a forward direction, and a locking mechanism 22 that prevents the drum from rotating in a reverse direction while permitting rotation of the drum in the forward direction. The locking mechanism has a plurality of ramped wedging surfaces 18 formed on the inner surface of the drum. A plurality of locking members formed by roller bearings 24 are interposed between each of the wedging surfaces and the shaft. Each locking member is rotatable about the shaft when the drum rotates in the forward direction, but when an attempt is made to rotate the drum in the reverse direction the locking members becomes releasably wedged between the wedging surfaces and a surface 12 of the shaft, thereby preventing the drum from rotating in the reverse direction. The locking members are located

within a locking housing formed by a pair of axially spaced end members 30/32 that are attached to the inner surface of the drum between the drum and the shaft on either side of the wedging surfaces. The housing includes a plurality of circumferentially spaced cages 54 formed in reinforcing web member 26 extending between the end members. The cages include tabs 56/57 that extend into dimples 62 in the roller bearings to rotatably support the bearings. These tabs are rectangular in cross section with their elongate axes extending parallel to tangential line through the circumference of the shaft so that they would limit circumferential motion of the bearings to ensure that the circumferential spacing between the locking members does not vary while at the same time allowing some radial motion of the bearings within the cages. These tabs also ensure that the bearings will move in unison so that they would simultaneously become releasably wedged between the shaft and the wedging surfaces to prevent the drum from being rotated in the reverse direction. Thus Wade shows all the structure required by claims 1, 5-7, 9-10 and 14-16.

Allowable Subject Matter

4. Claims 8 and 11-13 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark A. Deuble whose telephone number is (571) 272-6912. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene O. Crawford can be reached on (571) 272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Mark A. Deuble/
Primary Examiner
Art Unit 3651

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